

REMARKS

Claims 8-10 and 16-36 are pending. Please cancel Claims 1-7, 11-15 and 37, which are drawn to an nonelected invention. Applicants reserve the right to file a continuing application or take such other appropriate action as deemed necessary to protect the invention of Claims 1-7, 11-15 and 37. Applicants do not hereby abandon or waive any rights in this nonelected invention.

Claims 8, 16-19, 23, 26-31, 33, 35 and 36 have been amended. Claims 16-19, 27-31, 33, 35 and 36 have been amended to correct a typographical error. Claims 8, 16, 23, 27-31, 33, 35 and 36 have been reformatted.

Support for the amendment to Claim 8 can be found at page 12, lines 18-23, in the Specification. Support for the amendment to Claim 16 can be found at page 26, line 32 to page 28, line 25 in the Specification. Support for the amendment to Claims 23, 27 and 28 can be found at page 29, line 23 to page 31, line 21 in the Specification. Support for Claim 26 is found in the Specification page 31, lines 9-20.

Formal figures have been submitted. The figures have been amended to comply with rules 37 C.F.R. § 1.84(u)(1). The specification has been amended to include reference characters and other descriptions for the figures and to update the Related Applications paragraph and placed it as the first sentence in the Specification. The funding heading has been relocated to follow the Related Applications Section. No new matter is added.

Restriction Requirement Election

Applicants note an error was made in the replying to the Restriction Requirement where Applicants inadvertently omitted Claims 35 and 36 from recitation of Group III. For clarification, the pending claims in the application are 8-10 and 16-36.

Rejection of Claims 8-10, 16-36 under 35 U.S.C. § 112, Second Paragraph

Claims 8-10 and 16-36 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.

Applicants note that definiteness of claim language must be analyzed not in a vacuum but

in light of:

- (A) The content of the particular application disclosure;
- (B) The teachings of the prior art; and
- (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. See MPEP § 2173.02

For clarity and convenience, Applicants will respond to each rejection presented by the Examiner separately and under separate headings.

Rejection of Claims 8, 16, 27-36.

The Examiner rejects the claims as indefinite, stating it is not clear what is a “selective nongenotropic effect” so as to allow the metes and bounds of the claim to be determined. In regard to Claim 8, Applicants respectfully direct the Examiner to page 12, lines 18-23 of the Specification that lists exemplary forms of nongenotropic effects and also to page 26, lines 14-17 of the Specification. The ordinary artisan upon reading the teaching of the Specification would chose one of these activities for use in the method. Applicants respectfully request reconsideration and withdrawal of the rejection.

Clarification is requested for Claims 16 and 27-36 that do not contain the phrase but were listed in the rejection.

Rejection of Claim 8

Claim 8 was further identified by the Examiner as indefinite because it is not clear what pathways [are] activated. Applicants have amended the claim to recite “nongenotropic activities”. These activities are listed in the Specification, on page 12, lines 18-23.

Further, the Examiner states it is not clear when a compound “substantially activates”, Applicants notes the Specification, page 37, lines 22-24, recites, “Substantially activating the nongenotropic activity of a steroid receptor means activating a second messenger system such that the second messenger induces a nongenotropic biological response in a cell”. Additionally, the Specification provides the teaching that biological responses are chemical cascades, including but non limited to those caused by phosphorylation, changes in morphology, secretion, proliferation,

DNA synthesis, protein synthesis, and cytoskeletal rearrangements. See Specification, page 37, lines 24-28. The ordinary artisan would readily ascertain from the teachings of the Specification and the standard knowledge of the art, the metes and bounds of the claim. As such, the claim particularly as amended is definite.

Claim 16

The Examiner rejects Claim 16 as indefinite, stating that the phrase “selective steroidal response effect” is not clear. The claim has been amended to recite a steroidal response of activating nongenotropic activity and transcriptional activity. Claim 16 is also rejected as to the way the transcriptional activity is measured. Measurement of transcriptional activity is detailed throughout the specification, in particular, on page 35, line 4-19, page 30, lines 11-14 and the artisan of ordinary skill would also know of ways to determine the level of transcription as evidenced in the screening method section in the background of the Specification, see page 8, line 4-32. The claim has also been amended to recite “induces transcriptional activity of the receptor of less than 10% of endogenous steroid receptor ligands. As amended the claim is definite.

Claim 18

The Examiner rejects Claim 18 as indefinite, stating it is not clear what is a signal transduction pathway and where does the pathway start and end. Applicants respectfully submit that signal transduction pathway is a term of the art. The pathways are known to the ordinary artisan and are listed in standard biochemistry textbooks or on the world wide web. The members of such pathways are also known. Further, Applicants direct the Examiner to particular pathways listed in the Specification on page 25, line 28 to page 26, line 8. Applicants respectfully request reconsideration and withdrawal of the rejection.

Claim 19

The Examiner states that it is not clear what second messengers are considered non-genotropic activity. Applicants respectfully submit that the activation of second messengers are non-genotropic activity if they are activated by contacting a compound that sufficiently interacts with the ligand binding domain of the receptor in a manner that causes the receptor to mediate a

nongenotropic effect as is described throughout the Specification, and in particular on page 21, lines 8-21. Applicants respectfully request reconsideration and withdrawal of the rejection.

Claims 20-22

The Examiner states that these claims are indefinite stating it is not clear what specific kinase signal transduction pathways are and thus the metes and bounds of the claim. The Examiner is directed to the Specification on page 25, line 30 to page 26, line 8 and also Example 10 that demonstrate the activation of the activation of the MAPK/JNK signaling pathways and therefore nongenotropic activity through the determination of thymidine kinase, MEK1 or MEKK1 kinase activity. One of ordinary skill in the art would know the activation of members of the pathways by the kinase involved and therefore utilize methods of determining their presence such as commercial kits described in Example 10. Applicants respectfully request reconsideration and withdrawal of the rejection.

Claims 23, 27 and 28

Claims 23, 27 and 28 are rejected as indefinite because the Examiner states it is not clear when a compound induces a nongenotropic effect without substantially inducing a genotropic response so as to allow the metes and bounds of the claim to be determined. Applicants have amended the claims to recite the steps for ascertaining if a compound induces a nongenotropic effect without substantially inducing a genotropic response and have provided support in the preamble disclosing the goal of the claims. In view of the amendments, Applicants respectfully request reconsideration and withdrawal of the rejections.

Claim 26

Claim 26 is rejected as indefinite because the Examiner states it is unclear what is the target gene. Claim 26 has been amended to depend from Claim 25, which lists target genes. As such, the amended Claim is now clear.

Claims 27 and 28

The Examiner rejects Claim 27 and 28 as indefinite, stating it is not clear what compounds

are considered artificial or natural steroid receptors. Applicants respectfully submit that receptors and modified forms are listed at page 13, line 28 to page 14, line 17 of the Specification. The definitions of the two type of receptors are consistent with their ordinary meaning. An artisan of ordinary skill would ascertain from reading the Specification the natural and artificial forms of the receptors. Applicants respectfully request reconsideration and withdrawal of the rejection.

Claim 28

Claim 28 is further rejected because the Examiner states it is not clear which compound identified by claimed method would treat steroid receptor related diseases or disorders as compared to those compounds that provide a positive result in the method and have no use as therapeutic agents. Applicants submit that a compound selected by the method would be useful for treatment because the compounds identified have demonstrated an activity on the particular receptor. The receptors are already known to be related to certain disease states and thus the compounds would be useful due to their interaction with the receptor as identified by the method.

Moreover, the Specification details many medical conditions that the compounds identified through the method would be useful for, see for example, page 37, line 29 to page 40 line 6.

The Examiner also questions what is measured when the level of transcription is determined and what is a pro-apoptotic agent. The Specification details numerous ways that transcription can be determined, for example, on page 35, line 4-19 and as recited on page 30, lines 11-14, the amount of total mRNA generated in response to a test compound or the mRNA specific for one or more steroid regulated genes further the artisan of ordinary skill would also know of ways to determine the level of transcription. A “pro-apoptotic agent,” also a term of art, is used in the Specification consistent with its ordinary meaning, an agent that promotes apoptosis.

Claim 29

The Examiner rejects the Claim as indefinite, stating it is not clear what compound{s} are considered artificial or natural steroid receptors so as to allow the metes and bounds of the claim to be determined. Applicants respectfully submit that receptors and modified forms are listed in at page 13, line 28 to page 14, line 17 of the Specification. The definitions of the two type of

receptors are consistent with their ordinary meaning. An artisan of ordinary skill would ascertain from reading the specification the natural and artificial forms of the receptors.

Further, the examiner states it is not clear what is measured when the level of transcription is determined and what are considered minimal transcriptional levels as compared with nonminimal levels. As stated above, the Specification details numerous ways that transcription can be determined, for example, at page 35, line 4-19 and page 30, lines 11-14. Additionally, the artisan of ordinary skill would also know of ways to determine the level of transcription as evidenced in the screening method section in the background of the Specification, see page 8, line 4-32. The levels of transcription would be determined from comparing the activity with a control ligand that binds to the genotropic inducing portion of the receptor. And as detailed in the Specification on page 35, lines 15-19, [t]he steroid receptor-test compound complex can be used in binding assays with known nuclear transcription factors including but not limited to AP-1, NfκB, SRC-1 and the like. Lack of binding of the steroid receptor-test compound with transcription factors indicated that the test compound does not inhibit genotropic activity. As such, the Claim is definite.

Claims 30 and 31

The Examiner rejects the Claim as indefinite stating it is not clear what is a functional engineered or modified form of steroid receptor is so as to allow the metes and bounds of the claims to be determined. Further he inquires what function is required and what is the critical feature of the form relating structure to function.

The function required by the claim and as detailed throughout the Specification is the nongenotropic activity, that has rapid activation only of the ligand-binding domain of the steroid receptor as detailed at page 26, lines 14-17 of the Specification. Therefore, a functional engineered receptor or a modified receptor is one with this activity. Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 33

The Examiner rejects the Claim as indefinite stating it is not clear what is measured when the amount of transcription is measured, what genotropic activity is so as to allow the metes and

bounds of the claims to be determine and what is extracellular regulated kinase activation and how is it determined.

As provided above, the Specification teaches numerous ways to determine the amount of transcription and also describes genotropic activity. See for example, page 35, line 4-19, page 30, lines 11-14 and the background section page 8, line 4-32 of the Specification. An extracellular regulated kinase (also known as ERK) is a term of art and the Specification provides an example of a method of measuring ERK activation as demonstrated at page 40, lines 15-20 and that is detailed in the Example section, in particular Example 4 and Example 10. Thus, the teachings of the Specification provide the metes and bounds of the claim, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 35 and 36

The Examiner rejects these claims as indefinite stating it is not clear what is meant by a genetic variant, response element-reporter gene, serum response element reporter gene construct and when a compound activates the transcription of the response element reporter gene construct so as to determine the metes and bounds of the claim to be determined.

Applicants note that a genetic variant is consistent with the ordinary meaning of a variant of the steroidal receptor that maintains the nongenotropic activity. A response element-reporter gene is clearly defined at page 26, line 9-13 in the Specification. A signal transduction pathway responsive transcriptional control unit is described at page 25, line 28 to page 26, line 8 in the Specification. The elements are used throughout the Specification, in particular, the use of these elements is detailed in Example 9. Thus, the claims are definite.

In view of the above amendments and remarks, Applicants respectfully request reconsideration and withdrawal of all the rejections under 35 U.S.C. §112, second paragraph.

Formal Drawings

Formal Drawings are being filed concurrently herewith.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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